

LSU

LSU PATHWAYS



WHO?

HOW?

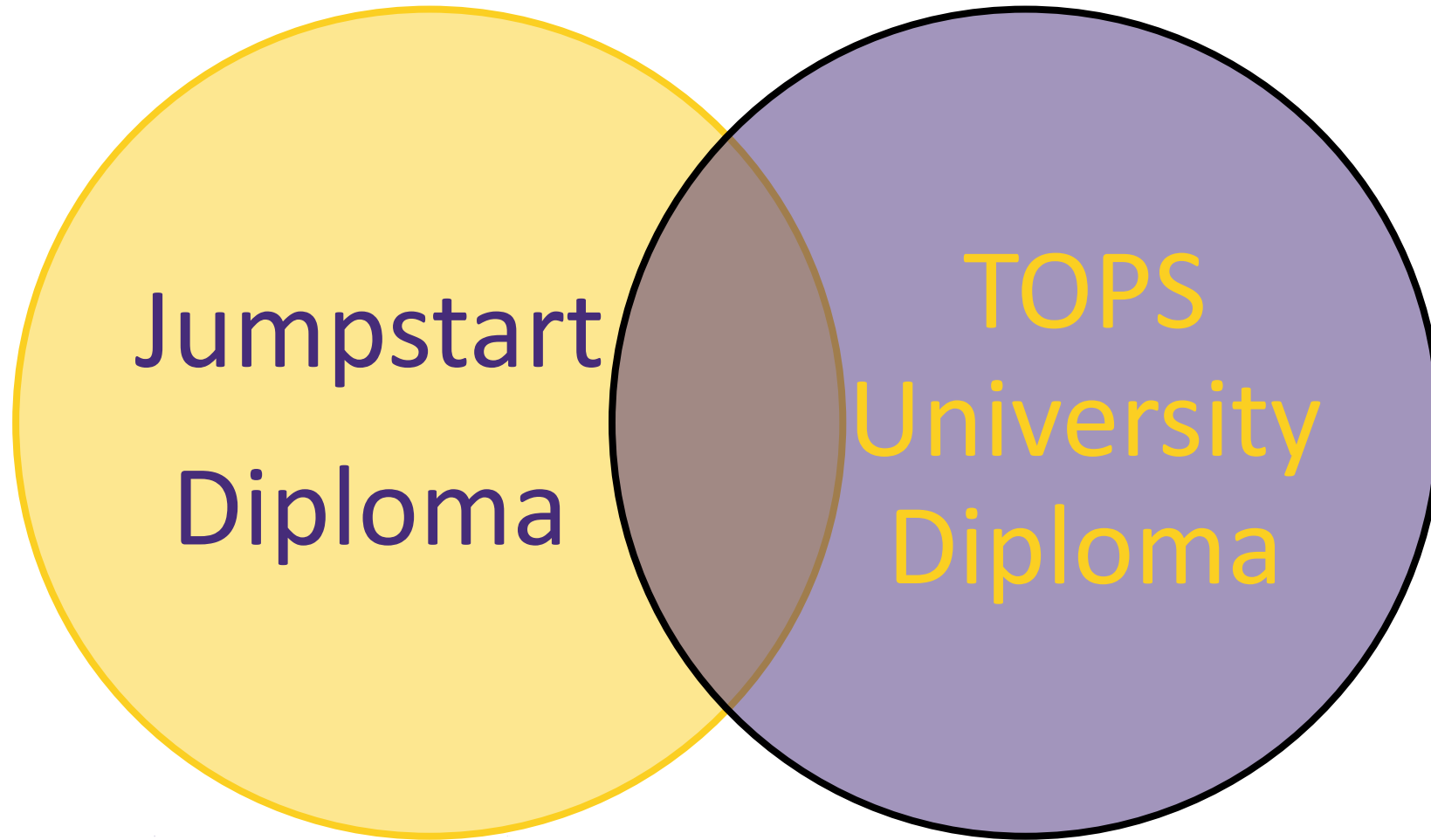
WHEN?

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WHAT?

WHY?

WHERE?



WHAT ARE LSU PATHWAYS?

- CTE/CDF approved courses
- \$480 per student per course
- Options
 - Pre-Engineering
 - Digital Design and Emergent Media
 - Biomedical Sciences²
 - Computer Science³

²Coming in 2019

³Coming in 2020

Pre-Engineering

- Exposure to Primary Disciplines
 - 3D modeling
 - Robotics

Digital Design and Emergent Media

- Coding for the web
- Storytelling through visual and audio
- Sound design

Computational Thinking
and
21st Century Skills

COMPUTATIONAL THINKING & COMPUTER SCIENCE

- Modeling with functions
- Physical Computing
- Object oriented design

Biomedical Sciences

- Comparative Anatomy
- Forensic Sciences
- Microbiology

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Pre- Engineering Pathway

A Closer Look



Core Courses (Required for JumpStart and TOPS STEM Endorsement)

Intro to Engineering
Intro to Computational Thinking
Intro to Robotics
Principles of Engineering⁴

LSU Engineering Electives (Required for Jumpstart, Optional for TOPS)

Engineering Design and Development
Engineering Economy
Programming for Engineers
Data Manipulation and Analysis

Other Electives (TOPS only)

AP Calculus, Statistics
AP/DE/II: Chem/Bio/Physics
AP Computer Science A/P

Electives from other pathways

Other Approved Electives

TOPS Choose 4 from either category

Core Courses

Intro to Engineering
Intro to Computational Thinking
Intro to Robotics
Principles of Engineering⁴

Guest Speaker, Hands on Project, Lab Reports/Presentations

Various programming languages, hands on projects

Hands on building of robots paired with programming sensors for autonomous movement

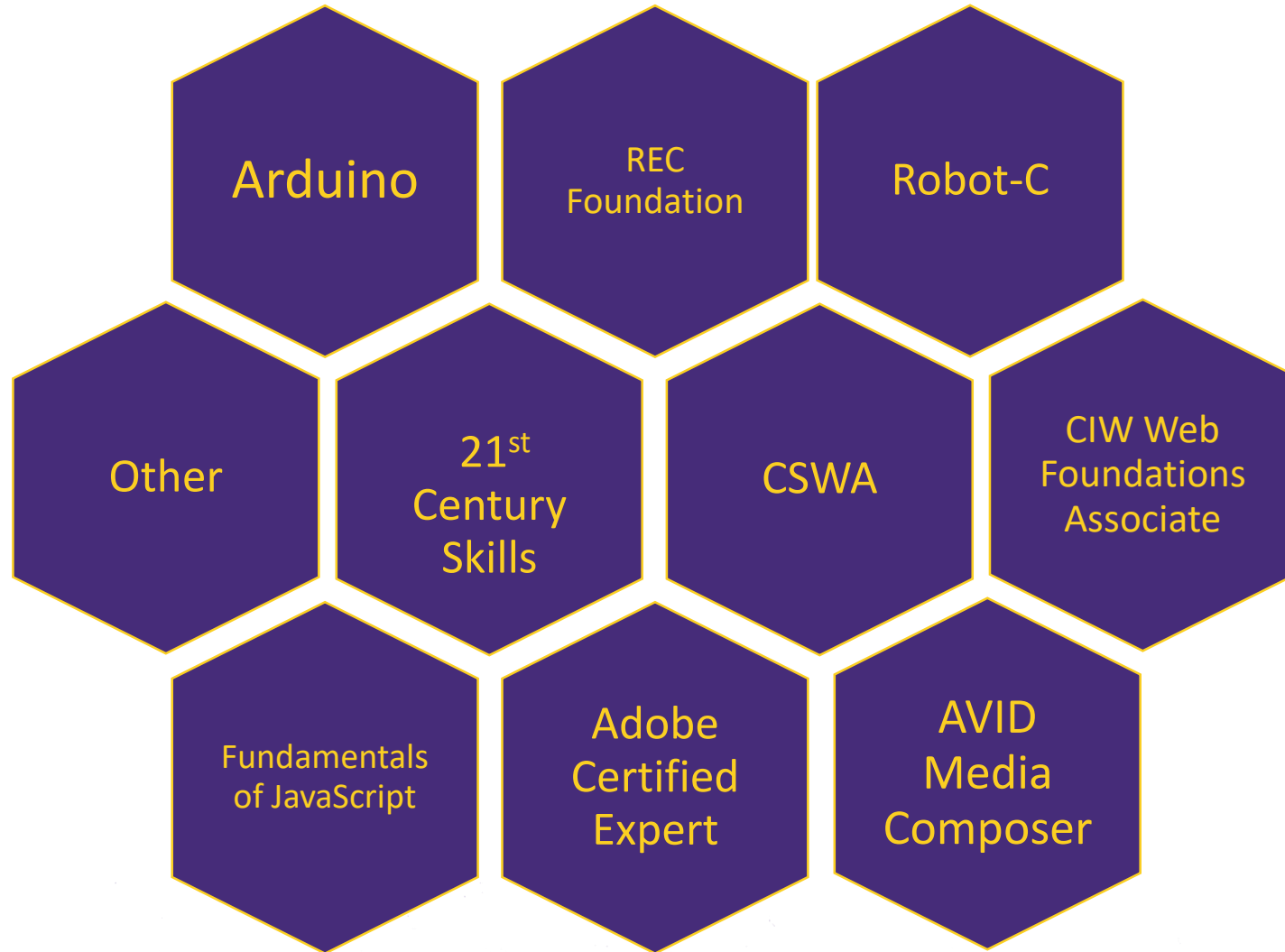
3 week in depth study of each engineering discipline through hands on project



OTHER APPROVED ELECTIVES

- Such as but not limited to
 - Manufacturing course
 - Welding/Pipe Fitter
 - Carpentry
 - Drafting







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WHY DO LSU PATHWAYS?

- High quality STEM courses
- Source of income for your district
- Graduate degree opportunity

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WHO DOES LSU PATHWAYS?

- Novice teachers
- Experienced teachers
- Mentor teachers
- By the numbers...



2013-2015

- Lee High and EBR partners with LSU
- Visit to Ohio
- STEM Academies Concept

2016-2017

- Pre-Eng pathway approved for Jumpstart
- Pre-Engineering Piloted
- **Total:**
1 school
< 100 students

2017-2018

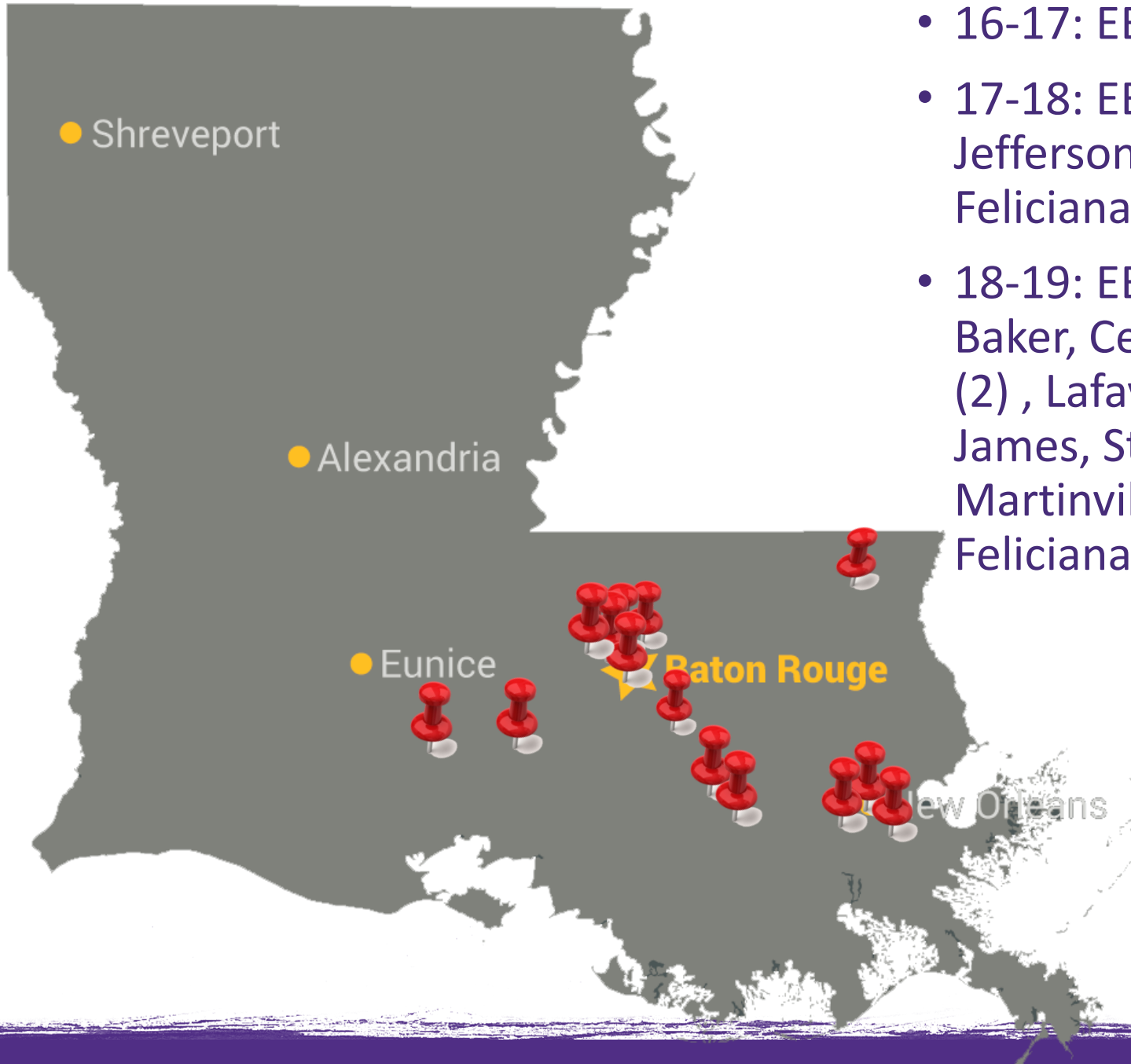
- Intro to Eng and Intro to CT Training and pilot
- **Total:**
7 Schools
5 Districts
299 Students

2018-2019

- DDEM Pathway Pilot
- Pre-Engineering Expansion
- **Total:**
24 Schools
13 Districts
1800+ Students

2019-2021

- Biomedical Pathway Piloted
- Computational Thinking Piloted
- Summer Training for additional Pre-Eng courses



- 16-17: EBR (1), Lee High
- 17-18: EBR (3), Central, Iberville, Jefferson, Pointe Coupee, West Feliciana
- 18-19: EBR (8), Ascension (4), Baker, Central, Iberville, Jefferson (2), Lafayette, Pointe Coupee, St. James, St. John the Baptist, St. Martinville, Washington, West Feliciana, Charter (1), Private (3)



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HOW TO DO LSU PATHWAYS?

- 3 or 6 week intensive training
- \$1,920 - \$3,840 per teacher
- District responsible for any additional stipend
- Working with Hass to add a manufacturing training option

WHEN DOES LSU PATHWAYS TRAINING HAPPEN?

3 week options

1st Session: May 28 – June 13

2nd Session: June 16 – July 3

6 week option

3rd Session: May 28 – July 3

WHERE DOES LSU PATHWAYS TRAINING HAPPEN?

LSU Pathways
LSU Baton Rouge